Algebra 1
Assignment #31

Name Solutions

Find the slope of the line that contains the points then write the equation of the line that contains the points.

1. (2,3) (4,3) $m = \frac{3-3}{4-2} = 0$ $y = 3$

2. (−3,5) (−3,7) $m = \frac{7-5}{-3--3} =$ undefined $x = -3$

3. (−4,−5) (−4,8) $m = \frac{8-(-5)}{-4-(-4)} =$ undefined $x = -4$

4. (2,−3) (−4,−3) $m = \frac{-3--3}{2--4} = 0$ $y = -3$

5. (1,−5) (−2,−5) $m = \frac{-5--5}{1--2} = 0$ $y = -5$

Write the equation of each line:

GRAPH 9 & 10

6. $x = 3$

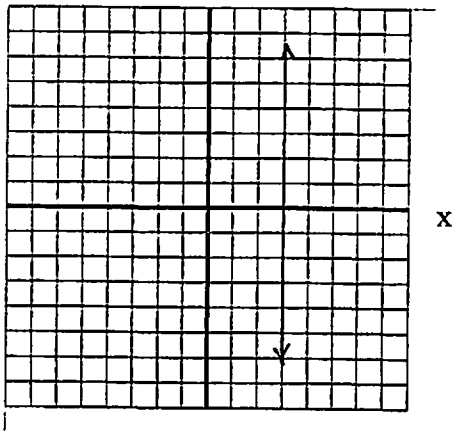
7. $y = -2$

8. $y = 4$

9. $x = -5$

10. $y = -7$

6.



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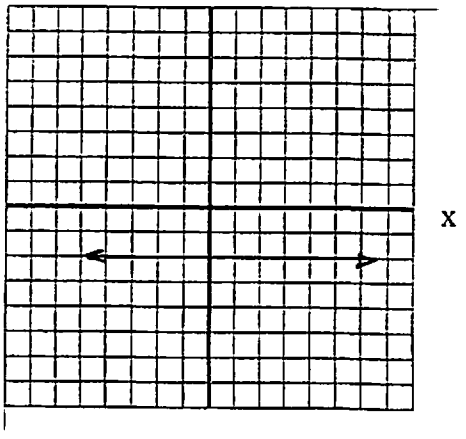

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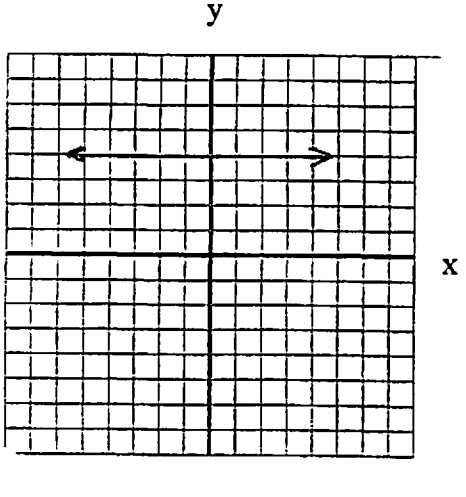

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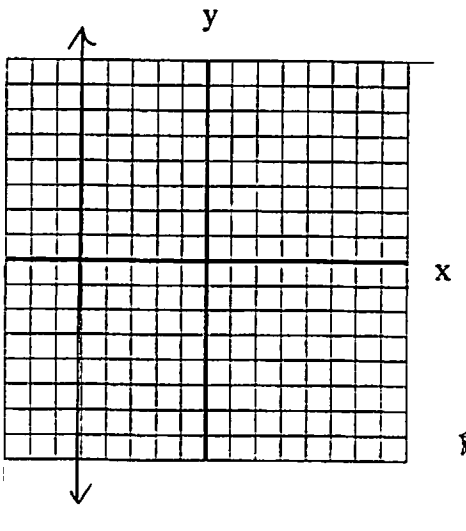

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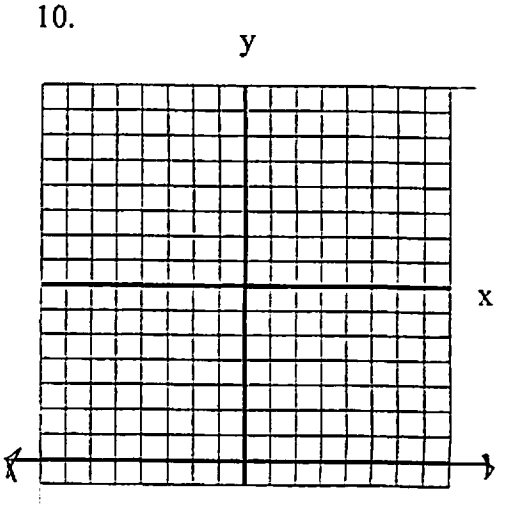


Graph each line and show two points.
Write the coordinates of the points.

11. $y-2=\frac{1}{2}(x-3)$

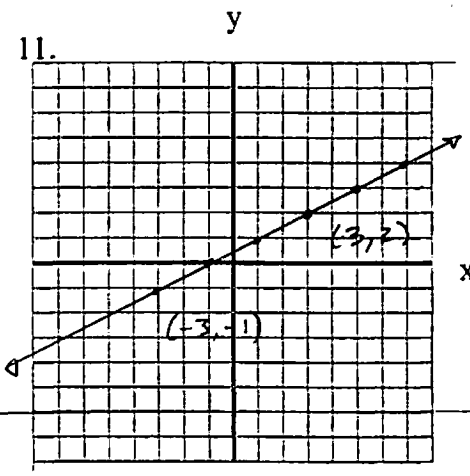
12. $y+4=-\frac{2}{5}(x+2)$

13. $y-5=\frac{7}{2}(x+1)$

14. $y+5=-\frac{1}{4}(x+3)$

15. $y-1=-\frac{4}{3}(x-1)$

11.



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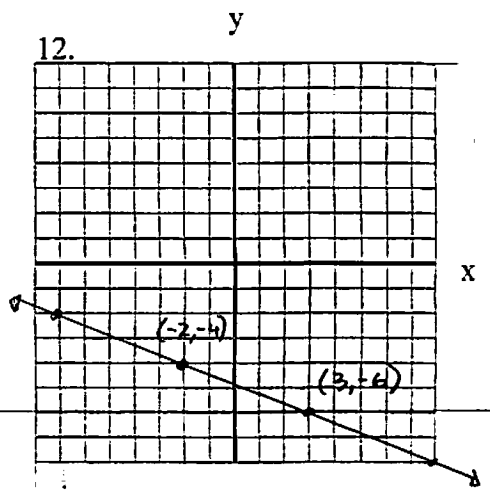

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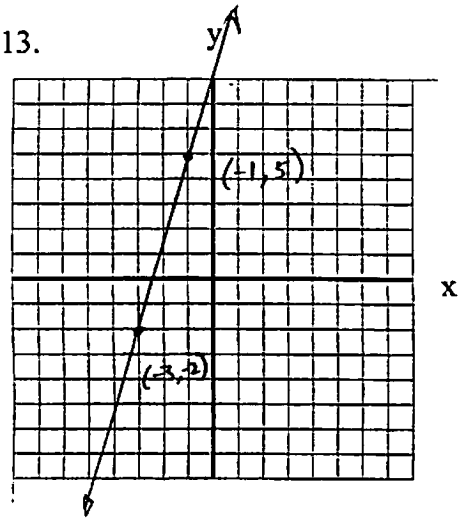

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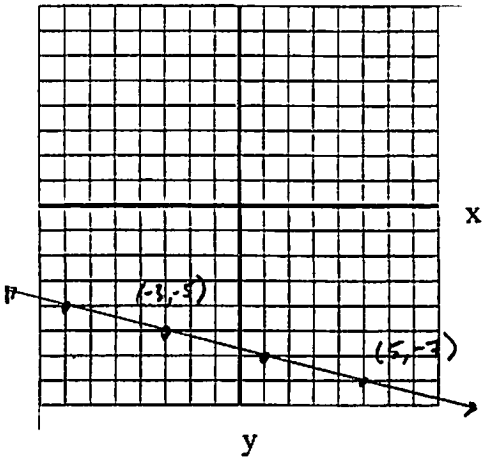

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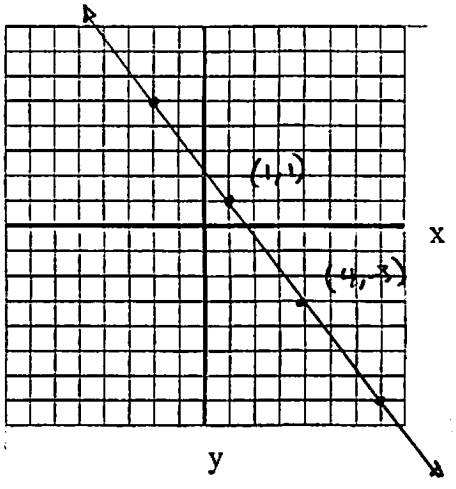


Write the equation of each line

16. $y-3=\frac{5}{7}(x-1)$

17. $y+1=-\frac{7}{5}(x-2)$

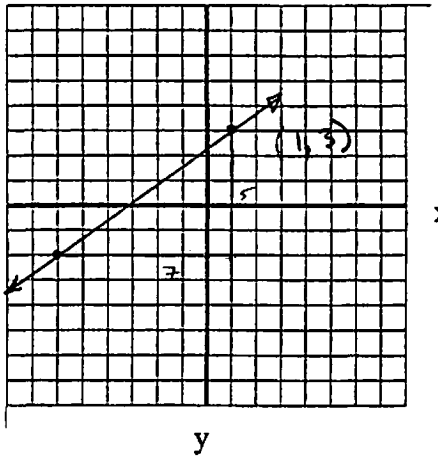
18. $y-1=\frac{1}{5}(x-1)$

19. $y-5=\frac{9}{2}(x-1)$

20. $y+3=-\frac{1}{4}(x+2)$

Note: If other point is used, equation will look different.

16.



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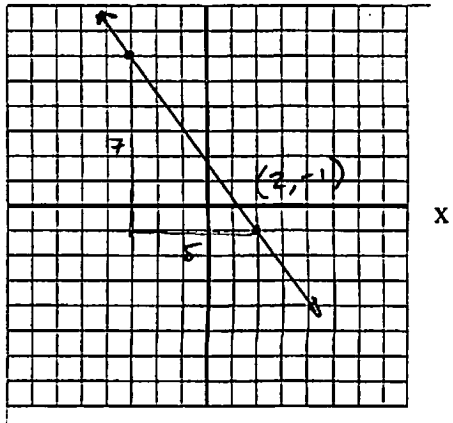

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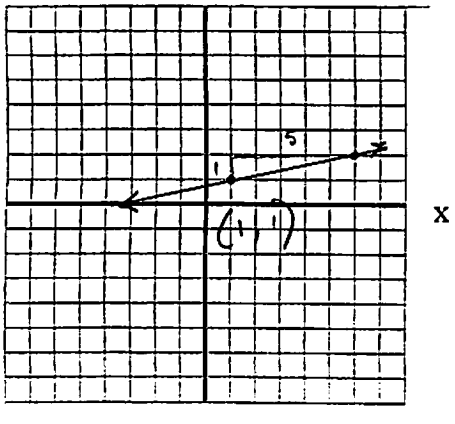

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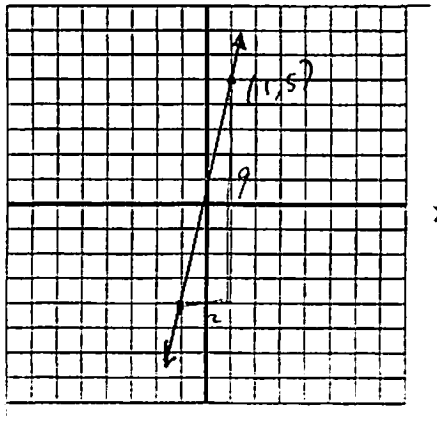

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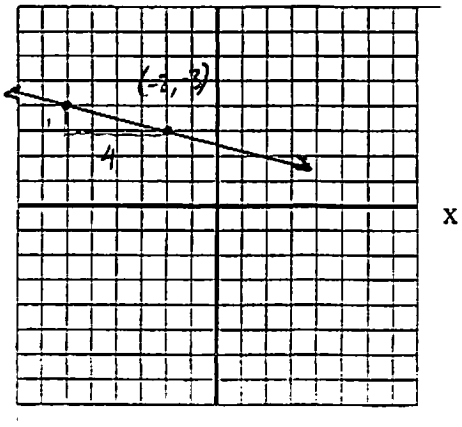


Algebra 1 Homework #32 Name _____

Part I: Change each linear equation below from point-slope form to standard form:

1. $y-5=\frac{4}{3}(x+7)$

$\times 3 \quad \times 3$

$3y-15=4(x+7)$

$3y-15=4x+28$

$-4x+3y=43$

2. $y-4=-\frac{2}{5}(x+3)$

$\times 5 \quad \times 5$

$5y-20=-2(x+3)$

$5y-20=-2x-6$

$2x+5y=14$

3. $y-6=\frac{4}{3}(x-1)$

$\times 3 \quad \times 3$

$3y-18=4(x-1)$

$3y-18=4x-4$

$-4x+3y=14$

4. $y-2=\frac{2}{3}(x-1)$

$\times 3 \quad \times 3$

$3y-6=2(x-1)$

$3y-6=2x-2$

$-2x+3y=4$

5. $y+4=-\frac{1}{5}(x-3)$

$\times 5 \quad \times 5$

$5y+20=-(x-3)$

$5y+20=-x+3$

$x+5y=-17$

6. $y-1=\frac{5}{2}(x+8)$

$\times 2 \quad \times 2$

$2y-2=5(x+8)$

$2y-2=5x+40$

$-5x+2y=42$

7. $y+7=\frac{5}{3}(x-4)$

$\times 3 \quad \times 3$

$3y+21=5(x-4)$

$3y+21=5x-20$

$-5x+3y=-41$

8. $y-2=-\frac{1}{3}(x-1)$

$\times 3 \quad \times 3$

$3y-6=-1(x-1)$

$3y-6=-x+1$

$x+3y=7$

9. $y-8=\frac{6}{5}(x+6)$

$\times 5 \quad \times 5$

$5y-40=6(x+6)$

$5y-40=6x+36$

$-6x+5y=76$

10. $y+2=-\frac{3}{4}(x+3)$

$\times 4 \quad \times 4$

$4y+8=-3(x+3)$

$4y+8=-3x-9$

$3x+4y=-17$

11. $y-1=-\frac{1}{3}(x-4)$

$\times 3 \quad \times 3$

$y-3=-1(x-4)$

$y-3=-x+4$

$x+y=7$

12. $y+3=\frac{7}{2}(x-1)$

$\times 2 \quad \times 2$

$2y+6=7(x-1)$

$2y+6=7x-7$

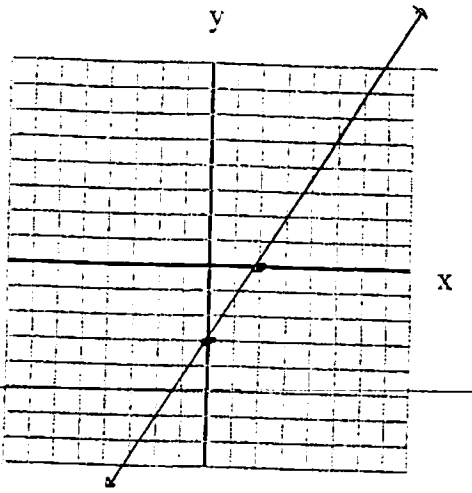
$-7x+2y=-13$

Part II: Find the x and y intercepts and graph each line using them:

13. $3x-2y=6$

(2, 0)

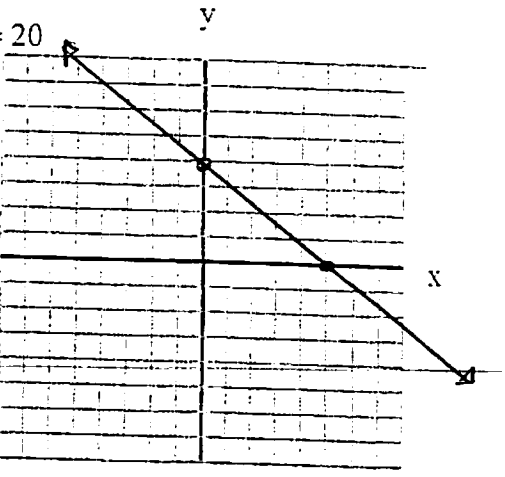
(0, -3)



14. $4x+5y=20$

(5, 0)

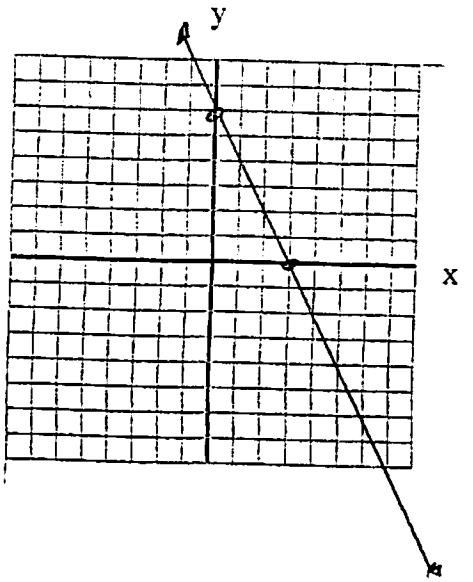
(0, 4)



15. $2x+y=6$

(3, 0)

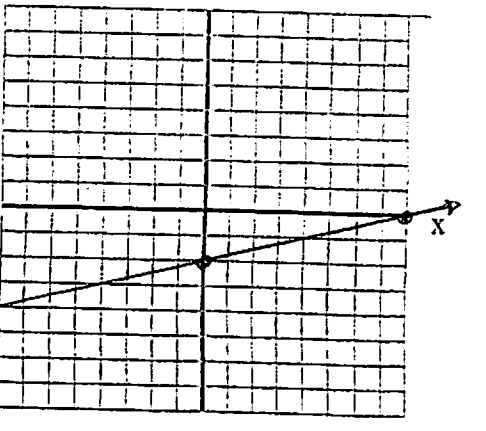
(0, 6)



16. $x-4y=8$

(8, 0)

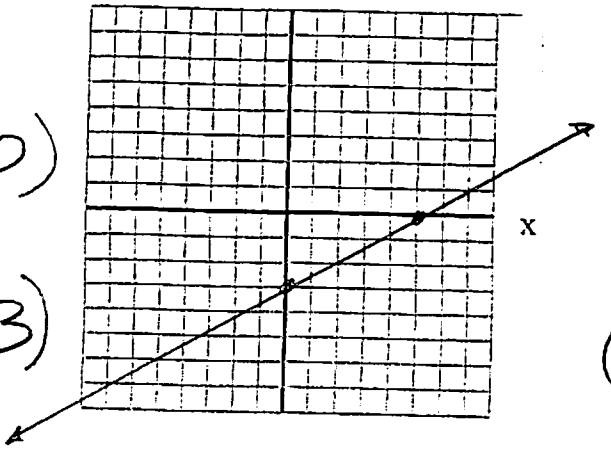
(0, -2)



17. $3x-5y=15$

(5, 0)

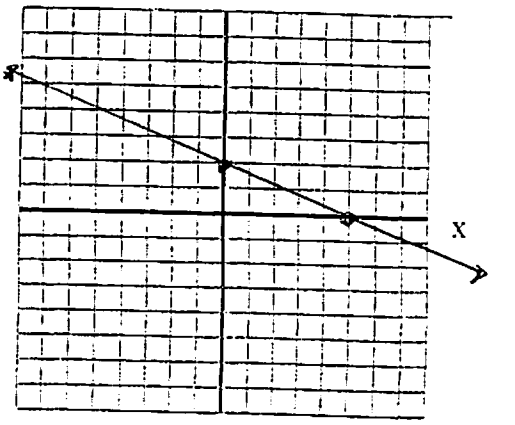
(0, -3)



18. $2x+5y=10$

(5, 0)

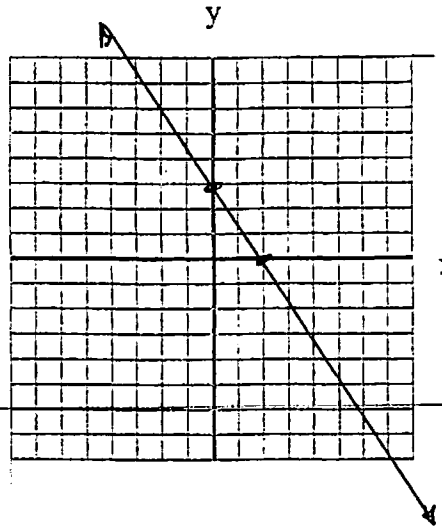
(0, 2)



19. $3x + 2y = 6$

(2, 0)

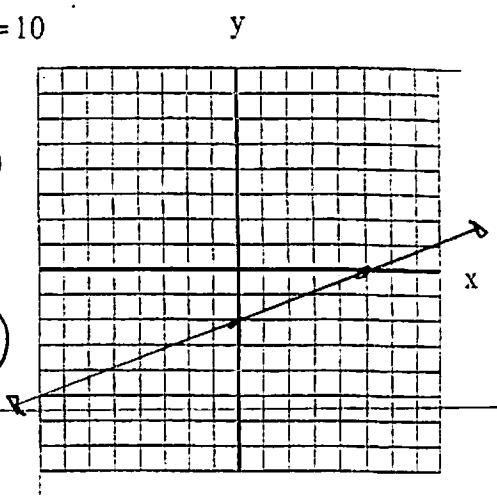
(0, 3)



20. $2x - 5y = 10$

(5, 0)

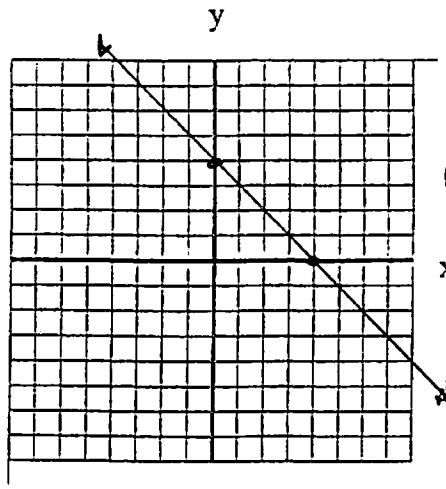
(0, -2)



21. $2x + 2y = 8$

(4, 0)

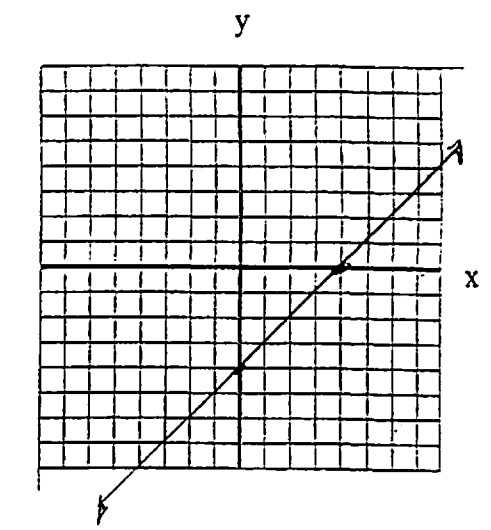
(0, 4)



22. $x - y = 4$

(4, 0)

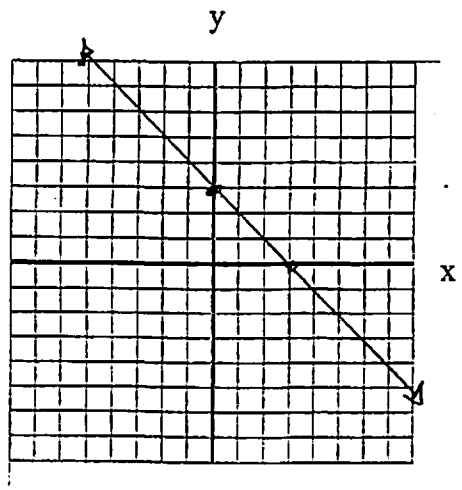
(0, -4)



23. $x + y = 3$

(3, 0)

(0, 3)



24. $2x - y = 6$

(3, 0)

(0, -6)